

**Review Team Report
Proposal for Master's in Professional Science**

**UNITY COLLEGE
September 24, 2014**

Review Team

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Introduction

Unity College requested approval from the State of Maine to offer an additional degree at the master's level. In keeping with Maine statute 20-A 10704 A, which states "an educational institution initially authorized by the Legislature to offer certain degrees under section 10704 may offer additional degrees with the approval of the state board." Unity College seeks to expand its environmental degree offerings to the graduate level by offering a Master's in Professional Science degree.

To assure the appropriate level of preparation and quality of the Master's in Professional Science program, the Maine Department of Education assembled a review team of university professionals to review the proposal from Unity College. The team included Dr. Yardley, Associate Provost at the University of Maine at Farmington; Dr. Beaulieu, Vice President for Academic Affairs at the University of New England; Dr. Hicks, Professor of Education and Environmental Studies at the University of Maine at Fort Kent; and Dr. Beardsley, State Board Observer, who served as a non-voting participant. The review team met on September 24, 2014 at the Maine Department of Education to review the proposal and prepare a recommendation for the Maine Board of Education. The review team had technical support from the higher education specialist, project consultant, and the coordinator of standards and instruction of the Maine Department of Education.

The process included a thorough review of the proposal prior to the meeting by each team member, access to digital documents of Unity College for detailed evaluation, a group discussion of issues by the team members, and a comprehensive review with the Unity College executive planning group. The Unity College team was led by the President of Unity College, Dr. Peter Mulkey and included the executive vice president, provost, dean, faculty members, and the chief information officer. The appointed review team engaged the representatives of Unity College in a conversation that was both broad and detailed to consider alignment of the proposal with the required published State standards.

Recommendation to the Maine State Board of Education

The review team recommends the Unity College be granted approval by the Maine State Board of Education to offer the Master's in Professional Science degree and to enroll students in the program in 2015.

This recommendation is based on its finding that the financial and academic planning has been completed with clear positive results that assures a sound academic program. As further refinements are made in preparation for the full and actual implementation of the program, which can only be done after approval by the State and NEASC, the review team is confident that this new degree offering by Unity College will be in full compliance with all State standards when it is offered in 2015. Details of the team's findings are expanded upon in the following report.

A. Organization and Governance

The Unity College bylaws document set forth the governance system for the college and includes a description of the authority and responsibility of the Board of Trustees, its officers and committees, the college president, officers of the college, and the faculty. Faculty, staff and students have been included in the development of both the concept and the actual proposal for expansion into graduate Master's in Professional Science education. Evidence was provided by the president and others that confirmed that all campus members contribute to the decision-making process in multiple ways, creating and fulfilling the sense of community at Unity College, which is the hallmark of the institution.

Unity College has also considered a clear process for quality assurance and oversight of this new degree offering in light of the strong sense of community. The executive vice president described the plan to establish an external advisory committee to provide ideas related to changes in the workforce and contribute to keeping the program current. He also described a robust connection to the Unity alumni, located across the nation, who are engaged in contributing to the development of the program.

The President of Unity College expanded on the comments and described a robust strategic planning process that had recently been completed under his leadership. He described the full campus participation, the clarification of the Board's role in governance and oversight of the larger goals, and the delineation of the strategic initiatives delegated appropriately to the executive leadership and the community members. He went on to describe the role of faculty in the shared governance process and how, "nothing proceeds without the input and support of the faculty."

In summary, Unity College has presented clear evidence that it has the official system of governance needed to provide a strong institutional base for growth with new degree offerings, as well as a vigorous network of both formal and informal contributors committed to making this new option a success.

This standard is met.

B. Institutional Objectives

The mission of Unity College states, "Through a framework of sustainability science, Unity College provides a liberal arts education that emphasizes the environment and natural resources. Through experiential and collaborative learning, our graduates emerge as responsible citizens, environmental stewards, and visionary leaders." This mission naturally leads to the extension of Unity College's central purpose with Master's in Professional Science graduate programming.

Established in 1965 with sustainability science as its strong focus, Unity College continues to educate environmental leaders espousing the belief that twenty-first century environmental challenges require the full engagement of higher education to prepare essential advocates, stewards, and policy makers in environmental issues. The leadership of Unity College cited published work in the proposal confirming that education and research is certainly needed to

understand the complexity of the interactions among economy, society, and nature in order to propose concrete solutions to complex environmental problems. The purpose of Unity College is to prepare students to apply and integrate the elements of sustainability science to advance sustainable solutions to environmental challenges. That purpose has been met successfully with current undergraduate programming, prompting the development of the Master's in Professional Science degree program.

The College has become known as a leader in sustainable science integration across the country. The vice president noted in the meeting with the review committee, that Unity College has produced alumni serving in environmental leadership positions across the nation, many of whom are eager to participate in this new initiative to add the master level program as advanced learners, advisory committee members, or faculty.

Unity College has a growing undergraduate population, sound financial base, and a goal to enable advanced environmental leaders access to its mission. The College is well positioned to establish the Master's in Professional Science with sustainability science as the foundation. The review committee recognized the strength in this approach, which builds from the strong base of knowledge and experience evident in the College's current educational programming. The link between the Unity College mission and purpose is readily identifiable in the proposal for the graduate degree approval. Sustainability science will be the core theme of each of the three proposed master's level concentrations: Climate Change Sustainability Science, Management of Ecological Change, and Sustainable Natural Resource Management.

The review committee recognized that Unity College is building on its experience with undergraduate post secondary education in which all students complete a set of core environmental citizen courses. The academic leaders and faculty have designed the mechanism for this continuity of purpose by adding advanced core and specialty courses that provide a higher level of understanding and achievement, as expected, in the graduate level learner. The graduate program will include courses and concentrations in climate dynamics, thinking in systems, sustainable human habitat, and community planning for resiliency, to name just a few.

In summary, Unity College has presented a clear mission and purpose in providing sustainable science education to students and to conscientiously extend that mission and purpose as a theme in all its connections, both internally and externally. Unity has grown in academic strength and reputation since its inception in 1965, providing excellent educational programming to undergraduate students. Following an extensive strategic planning and community participation process to identify the path to the future, Unity College has proposed extending its solid experience in sustainable science with the proposed Master's in Professional Science. The review committee recognized the ability of the Unity College administration, faculty, and staff to take that capacity in sustainable science to carefully construct an advanced educational offering to more fully prepare the next generation of environmental leaders with graduate professional education.

This standard is met.

C. Degree Requirements

Unity College has developed a curriculum that meets this standard with a minimum of 30 semester hours of study beyond the baccalaureate level of study. In designing a professional master's degree program, Unity College decided explicitly to focus on preparing graduates for leadership roles in society and the workplace. The curriculum design places emphasis on the courses and internship and less emphasis on conducting original research, in the way research has historically related to the doctoral degree. While students may select and will conduct applied research in a trans-disciplinary manner, the focus is on professional competency and leadership.

The program will be offered Master's in Professional Science over a twelve month period with five eight week blocks, which is customary in graduate Master's in Professional Science education. It is expected that students will typically take no more that eighteen months to complete the program. Students will be required to take 12 credits of professional skills coursework, 12 credits in science specialty coursework, a sustainable science internship for three credits, and three to five credits in electives or sustainable science research, with the research component optional. In addition to the appropriate number of credits awarded, the proposed program includes a detailed listing of the expected student learning outcomes for all Master's in Professional Science students. Those stated student learning outcomes will form the basis for assessment of student learning, the basis for adjustments in the curriculum as results of the assessment of student learning are documented, and the foundation for a process of continuous quality enhancement. This quality assurance process focused on evidence of learning will confirm that all students reach the stated learning outcomes while taking the courses and internships to reach the thirty credits required for the degree.

An additional element of the proposed program that will provide a strong standard of quality is Unity College's commitment to gain certification in the Professional Science Master's programs (PSM) from the Council of Graduate Schools. Adherence to this type of national standard serves a similar function as professional or specialized accreditation; that is to provide a level of quality to be met by reaching national standards of performance and providing clear evidence of compliance with all the national standards of excellence.

While the proposed program has been designed to provide the distance learner access to the Master's in Professional Science from any geographic location, options for community building and face-to-face interactions are expected to be established to take advantage of the natural laboratory of Maine and other selected physical sites, as needed. The review team received assurance from the academic dean that the process of providing students with a community experience beyond the Master's in Professional Science one will be handled with sensitivity to fairness and equity. The dean mentioned that those unable to physically reach the campus or other selected geographic site for a short term experience, will not be disadvantaged.

In summary, Unity College has presented a clear curriculum design that meets the standard of the required 30 credits of study at the master's level. It has described the course of study in great detail in anticipation of publishing it on the College's website and application materials once fully approved. The College has confirmed that the Unity College Registrar has full

responsibility for confirming each student's progress toward and attainment of the stated requirements. All degrees awarded, including the Master's in Professional Science, undergo the layered process of confirmation by the registrar. Faculty then vote to recommend the awarding of the degrees to the Board of Trustees who ultimately confer them.

Unity College has structured a degree program appropriate for the level of the student seeking the professional type of degree. The planners have clearly articulated the goals of the professional education degree program are not to prepare students for the in-depth, narrowly defined theoretical research required at the doctoral level. Instead, Unity College explained thoroughly to the review committee that it seeks to prepare students for leadership roles in business, industry, government, and non-profit agencies directly following the program. The stated goals of the program include contributing to the national workforce on sustainability science; producing professionals trained in project design and management; and producing science ambassadors trained in ethics, policy, and effective communication.

This standard is met.

D. Admission Requirements

Unity College has developed clear criteria for admission into the Master's in Professional Science that are aligned with other master degree in science programs. The following standards are expected to be met for admission into the program:

- 1) A bachelor's degree from an accredited institution of higher education, with a minimum cumulative, non-weighted grade-point average of 3.0
- 2) GRE scores of at least 148 on the quantitative section, at least 146 on the verbal section, and at least 4 on the analytical writing section
- 3) The completion of an admission application including an essay that details academic and life preparation as well as commitment to sustainability
- 4) Demonstrated strength in science and math and interest in Sustainability Science

Discussions with the Unity Team indicated that they are interested in reaching a diverse student body that will include international candidates. A staff member, who was hired one year ago into the role of the international admissions counselor, will support this work. Candidates with different preparations are encouraged to apply, and professionals, who have worked successfully in science-related fields for at least five years, may have some admission requirements, such as the GRE, waived. All candidates will be reviewed on a case-by-case basis.

Unity College has also clearly defined its policies for transfer credit and credit given for life experiences. The registrar has responsibility for determining which credits will be accepted and how they will be applied to program requirements. Discussions with the Unity Team confirmed that no more than ten credits can be transferred into the graduate program.

Clear policies for the refunding of tuition and fees have been developed and will be posted in the Unity College Catalog.

This standard is met.

E. Academic Programs

The review committee found that Unity College's Master's in Professional Science is well aligned with the campus' mission and vision, and that it fits well with the overall objectives of the college. The materials provided to the team, along with the dialogue covered in our meeting with faculty and administration, documented the relationship between the new degree offering and Unity College's overall mission.

Unity College's mission statement focuses on a sustainability science framework and experiential and collaborative pedagogies as driving forces of classroom practice. The new masters' degree program is grounded in sustainability science, including concentrations in Climate Change Sustainability Science, Management of Ecological Change, and Sustainable Natural Resource Management. The core curriculum of the program includes a Sustainability Science Internship, Professional Skills courses, and an elective research experience. It is clearly grounded in the core mission and objectives of Unity College.

Unity College provided the review team with ample evidence that it has a written policy in their catalog that describes their system for evaluating student performance. The college also provided documents that outline the established criteria to judge satisfactory performance in the program, which includes the criteria for academic probation and the conditions of dismissal for unsatisfactory performance. The faculty at Unity College is currently constructing a similar set of policies and procedures that will be in their Master's in Professional Science Graduate Student Handbook and in the Unity College Catalog.

The faculty and administrative team informed the review team that the Master's in Professional Science degree will have an established set of program outcomes and corresponding assessment tools which will guide students in the completion of their academic program. The review team found that this state of the art practice will benefit students in Unity's master degree program.

Unity College has established several mechanisms for the evaluation of program quality and the review of courses. This assessment practice will include a review of the program under the Professional Science Master's requirements as set forth by the Councils of Graduate Studies. This is a nationally recognized organization of Professional Master's programs.

The new Master's program at Unity College will also have an external advisory board, conduct annual program assessments and will join other Unity College programs in the 5 year program review cycle.

Each student in the program will complete a review of each course taken, which will include both quantitative and qualitative feedback. This feedback is reviewed by the appropriate program director and the faculty. In addition to the student evaluations, the Director of Distance Education, or his or her designee, will monitor the courses for appropriate pedagogies such as Master's in Professional Science discussion, evaluation of student work and the administration of student satisfaction surveys.

Unity College will also, through the Office of Career Services conduct annual surveys of program graduates and their employers.

The program of study as outlined in the self-study and confirmed in the meeting with faculty and Unity College's administration clearly consists of a planned educational program, which is built around a wide range of educational experiences, including laboratory experiments, field work, experiential learning opportunities, as well as, a set of appropriate assessment practices.

The program documents provided outlined the schedule, based on five eight week sessions and indicated the degree can be completed in 18 months. It also summarizes internships, provides course descriptions and offers the learner curricular details through the Master's in Professional Science - Curricular Checklist.

This standard is met.

F. Faculty

Seventy-two percent of full-time faculty members at Unity College have terminal degrees. Faculty who are not terminally degreed all have relevant professional expertise as judged by the faculty and administration. The faculty/student ratio at Unity College is 1:12. Three years ago, the college began budgeting to hire new faculty in the area of sustainability science, and the faculty has increased by thirteen new positions in the past three years. The faculty and administrative group that met with the Review Team confirmed that the new hiring was in direct preparation for the Master's in Professional Science degree and their hiring efforts were to bring academic expertise to the campus.

Provided documents outline the following requirements for graduate faculty:

- 1) Employment by Unity College as regular faculty, instructors, or adjuncts
- 2) Ph.D. or terminal degree in the field or significant professional experience
- 3) At least 2 years teaching or management experience in the field

All faculty members at Unity College teach in academic programs, as the College does not have any positions which are solely research. Unity College has an active peer-evaluation process of all faculty members, and instead of faculty tenure, they use a multi-year contract process. Faculty are directly involved in the decision making processes of the campus.

Documents provided to the Review Team describe the basic roles and responsibilities of the faculty at Unity College. These include the responsibility to recommend the educational programs of the College to the Board of Trustees; to recommend the awarding of degrees and honorary degrees for approval to the Board of Trustees; and to be responsible for the organization and delivery of the academic programs, subject to the direction of the President and the approval of the Board of Trustees.

As presented in Unity College's request for Degree Authorization, and as confirmed by the faculty and administration present at the review meeting, the Task Force responsible for the development of the graduate program includes several faculty members, many who are serving currently as Center Directors. The faculty present at the review meeting confirmed the

documentation stated in the report that their colleagues are highly involved in all matters of educational programming, including the development of the Master's in Professional Science degree program. The graduate program was reviewed at several faculty meetings and shared with faculty members through an on-line discussion forum.

A graduate steering committee, made up of administrators, faculty and staff will advise program administration, with the Provost having the ultimate responsibility for the overall administration of graduate degrees, including matriculation, admissions requirements, and tracking of student credits through the program.

Unity College's academic programming is housed in five Centers of Excellence and the directors of those centers, who are all faculty members, serve as a leadership group for the College. The Center Directors work with their faculty and the Provost to ensure that faculty voice is heard in decision making at the executive level. The fulltime faculty meet biweekly, and deliberate and vote on a wide range of issues, including curriculum and faculty membership. The Executive Committee consists of the President, Vice-President, and Provost/Academic Vice President. In matters of the Executive Committee, the Provost represents the voice of the faculty. The faculty present at the review meeting affirmed that this organization is effective for program development and that the faculty were a vital part of creating the graduate program.

This standard is met.

G. Student Services

The proposal for the new degree describes the current system of student services provided to undergraduate students at Unity College. The experience gained provides a basis for action that will form the platform on which a system for Master's in Professional Science, graduate level learners can be created. The elements of the current system include academic advising, career services, the writing center, and the office of community-based learning. The proposal describes a thorough understanding of and success in providing the required services for current undergraduate students. For example, the academic advising process entails required meetings with faculty advisors trained in the specifics of the undergraduate student needs before the student actually selects and registers for courses. That has proven effective in keeping students on track by combining the high touch advising service provided by chosen faculty members with a high tech experience with access to a portal for course selection. The review team was reassured by the Vice President and Provost that an analysis of the needs of Master's in Professional Science, graduate students will be completed as part of the implementation plan. This analysis of learners' needs and best practices for Master's in Professional Science advising will determine the appropriate level of high touch and high tech so that every student gains "The Unity Experience" in a different, yet comparable way.

The Provost has oversight and responsibility for managing the graduate program's outcome-oriented academic and career planning and advising services. The current implementation plan for comprehensive student services involves creating an Advisory Team for each student. That Advisory Team will include a faculty member and will work in a coordinated way to assure that Master's in Professional Science students have access to all required services. The Advisory

Team will play a critical role in the student's success with a collaborative approach to aligning the required internship, course selection, and any research experiences with the offices of the registrar, career services, learning center, and community-based learning office for an integrated student support system.

The Vice President described a variety of new services available to Unity College to augment the current processes described and tailor the experience to the Master's in Professional Science, graduate professional level student. For example, the writing center may be of the highest quality for undergraduate residential students with trained consultants available to work directly with students on oral and written communication skills. However, Master's in Professional Science, graduate students are likely to need additional services. The proposal describes that the writing center staff are ready to extend their collaborative reach to Master's in Professional Science students. While this is admirable, the specific needs are yet to be determined and will be part of the next phase of implementation. In preparation for the implementation phase the Vice President has researched services available to augment the current expertise and is prepared to identify and prioritize Master's in Professional Science resources for institutional purchase or subscription, such as 24/7 virtual tutoring services. The College is also aware and prepared to establish virtual office hours and collaboration space for Master's in Professional Science students.

In summary, the proposal describes an excellent system of student services that provides the elements needed for student success. Building on that success is the starting point for the provision of services for graduate students. Since the implementation specifics are in the early stages at this point in the process, a full determination of the adaptations required and the services provided or acquired for the Master's in Professional Science students has not been finalized. However, the review team was assured by the vice president, provost, and dean that comparable quality student services, specifically designed for Master's in Professional Science learners will be provided in a thoughtful, customized manner.

This standard is met.

H. Library and Learning Resources

The Quimby Library has the capacity to successfully support the master's degree program. It subscribes to three JSTOR databases, with additional JSTOR databases and e-books becoming available in July 2015 to further support the graduate program. All students and faculty, regardless of location, will be able to access the Master's in Professional Science content available through these data bases. Additional resources will be available through Maine's Virtual Library (Marvel!) and the Download Library. Students will be able to utilize interlibrary loan to request material not owned by the library, and they will also be able to request that printed materials be shipped to them.

Unity further states that it subscribes to numerous Master's in Professional Science library resources that are critical for the study of Sustainability Science. Faculty and students will have access to thousands of full-text journals, monographs, and documents through Academic Search Complete, Environmental Complete, ERIC, Forest Science, Lexis/Nexis Academic; Oceanic

Abstracts; and Wildlife and Ecology Studies Worldwide. Prior to the start of the first cohort, Unity College plans to expand access to several important resources, including Science Direct, *Science and Nature*, *Nature Climate*, the Ecological Society of America journals, the Conservation Society journals, and the *Proceedings of the National Academy of Sciences*.

The library is staffed by librarians, half of whom hold MLIS degrees, and work study students. The self-study states and the Unity team confirmed that staff will be available to assist graduate students via digital conferencing, email, phone, and face-to-face interactions. The library is currently open approximately 80 hours per week during the academic year, but there is a plan to extend availability into the summer months to accommodate the needs of the graduate students.

Much thought has been given to providing support for graduate students and distance learning with the Learning Resource Center, Writing Center, and Office of Community-Based Learning developing plans to address students' needs. The Learning Resource Center has as its mission the provision of the support and services necessary for all students to enhance their academic achievements. Center staff is in the process of developing a specific plan for extending services to graduate and distance learning students, as well as establishing best practices resources for faculty and staff accommodating differently-abled learners.

The Writing Center staff has also been discussing optimal ways for its trained consultants to provide feedback to graduate students and distance learners on their written and oral communication. Tools such as Canvas, Google Apps for Education, Skype, email, and Google Hangout will enable the same level of support provided to on-campus students. According to the self-study, the Writing Center Staff has agreed to 1) create a Writing Support Plan specific to graduate and distance learning, 2) identify and prioritize Master's in Professional Science resources for institutional purchase or subscription, 3) establish virtual office hours and establish a virtual collaboration space, and 4) market services to graduate students.

The Office of Community-Based Learning plans to share its expertise regarding service learning, community-based learning, and project-based learning with faculty. According to the proposal, staff will "work with faculty to identify, establish, and manage strategic community partners in geographically strategic parts of the nation and world."

This standard is met.

I. Facilities

Unity College has planned extensively and invested purposefully in the resources necessary to deliver the Master's in Professional Science degree. During the meeting with the Unity Team, representatives described how they have built capacity in the technology infrastructure over the past two years and are prepared to continue upgrades as the program develops. Preparations for the graduate program include a significantly expanded bandwidth and connection to Internet2 through Network Maine. Unity has also invested in the Canvas learning management system, Google Apps for Education, and two Tandberg remote conferencing units to provide them with the Master's in Professional Science course management and communication tools necessary to

offer a high quality Master's in Professional Science program. Capacity for recording and streamlining

streaming high quality Master's in Professional Science media products has been considered, appropriate cameras and software have been purchased, and a new video-ready lecture hall has been developed. Capacity and infrastructure have also been developed so graduate students will have remote access to academic support services, advising, and counseling. In addition to facilities, significant investments have been made in the IT staff, with the hire of an instructional technologist and an instructional designer.

While the Master's in Professional Science degree program will be delivered Master's in Professional Science, Unity College's campus has the classrooms and laboratories necessary to support teaching and learning. The campus has recently seen the development of several new labs, including a multimedia/GIS lab, as well as renovations to buildings and learning spaces. A new Sustainability Science Learning and Conference Center is expected to be built in the next few years. Graduate students will be expected to uphold the standards for a safe and respectful environment. Electronic etiquette, Master's in Professional Science safety, and information security standards will be applied.

This standard is met.

J. Financial Resources

Unity College is currently an accredited degree granting institution.

The review committee found that the documents provided, and the information provided by the faculty and administrators in our meeting, clearly demonstrate that Unity College has allocated the resources to successfully implement the Master's in Professional Science degree program. Unity College has grown its endowment to over 14 million dollars and has demonstrated in documents and through dialogue that it has been planning for several years the implementation of the MPS degree. The college has added 13 new faculty positions, has created a budget based on reasonable expectations for recruitment of students and has allocated adequate funds for faculty development. It has engaged in long-term strategic planning and has used that planning, along with its resources, to expand its technology capabilities; has hired technology experts to facilitate the Master's in Professional Science program; and has carefully planned the implementation of its graduate program. The team was quite impressed with the depth of thought and planning that the college has given to this endeavor.

This standard is met.